5

10

15

What is claimed is:

- 1. A graft prosthesis, comprising:
- a purified, collagen-based matrix structure removed from a submucosa tissue source, said purified structure having a contaminant level making said purified structure biocompatible, said purified structure further having an endotoxin level of less than 12 endotoxin units per gram.
- 2. The graft prosthesis of claim 1, wherein said endotoxin level is less than 10 endotoxin units per gram.
- 3. The graft prosthesis of claim 2, wherein said endotoxin level is less than 5 endotoxin units per gram.
 - 4. The graft prosthesis of claim 1, wherein said purified structure has a bioburden level of less than 2 colony forming units per gram.
 - 5. The graft prosthesis of claim 4, wherein said bioburden level is less than 1 colony forming unit per gram.
- 6. The graft prosthesis of claim 5, wherein said bioburden level is less than 0.5 colony forming units per gram.
 - 7. The graft prosthesis of claim 1, wherein said purified structure comprises a delaminated submucosa tissue source.
- 8. The graft prosthesis of claim 1, wherein said purified structure comprises a cleaned and delaminated submucosa tissue source.
 - 9. The graft prosthesis of claim 1, wherein said purified structure comprises a delaminated submucosa tissue source pretreated with an oxidizing agent to remove at least a portion of the source of endotoxin.
- 10. The graft prosthesis of claim 1, wherein said purified structure comprises a cleaned and then delaminated submucosa tissue source.
 - 11. A graft prosthesis comprising:
 - a purified, collagen-based matrix structure removed from a submucosa tissue source, said purified structure having an endotoxin level of less than 12 endotoxin units per gram.
- The graft prosthesis of claim 1, wherein said purified structure is tubular.

5

10

15

20

- 13. The graft prosthesis of claim 1, wherein said purified structure is adapted for tendon or ligament repair.
- 14. The graft prosthesis of claim 1, comprising multiple layers, wherein each of said layers is formed of said collagen-based matrix.
- 15. The graft prosthesis of claim 1, wherein said purified structure is comprised of tela submucosa in strip form, said graft prosthesis comprising a plurality of said tela submucosa strips fused to one another.
 - 16. A graft prosthesis, comprising:
- a purified collagen-containing matrix obtained from a mammalian tissue source, said matrix comprising tela submucosa and residual contaminants from said mammalian tissue source, said matrix obtainable by a process which comprises treating said mammalian tissue to remove at least a portion of endotoxin contaminants and then removing said matrix from the treated mammalian tissue, and disinfecting said matrix so that it has an endotoxin level of less than 12 endotoxin units per gram.
- 17. The graft prosthesis of claim 16, wherein said matrix has a contaminant level making said matrix biocompatible in humans.
- 18. The graft prosthesis of claim 16, wherein said disinfecting comprises contacting said mammalian tissue with an oxidizing agent.
- 19. The graft prosthesis of claim 17, wherein said mammalian tissue source is a porcine tissue source.
 - 20. The graft prosthesis of claim 19, wherein said porcine tissue source is porcine small intestine.